

APPROVED	O.G. FIG.
BY.	CLASS 18 (20) CLASS
DRAFTSMAN	

08/765588
PCT/AU96/00094

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1	TCGGCCTCC GAAACC ATG AAC TTT CTG	
	Met Asn Phe Leu	1
50	CTT GCC TTG CTG CTC TAC CTC CAC	
	Leu Ala Leu Leu Leu Tyr Leu His	15
98	CCC ATG GCA GAA GGA GGA GGG CAG	
	Pro Met Ala Glu Gly Gly Gly Gln	30 35
146	ATG GAT GTC TAT CAG CGC AGC TAC	
	Met Asp Val Tyr Gln Arg Ser Tyr	45 50
194	GAC ATC TTC CAG GAG TAC CCT GAT	
	Asp Ile Phe Gln Glu Tyr Pro Asp	60 65
242	TCC TGT GTG CCC CTG ATG CGA TGC	
	Ser Cys Val Pro Leu Met Arg Cys	80
290	CTC GAG TGT GTG CCC ACT GAG GAG	
	Leu Glu Cys Val Pro Thr Glu Glu	95
338	CGG ATC AAA CCT CAC CAA GGC CAG	
	Arg Ily Lys Pro His Gln Gly Gln	110 115

Fig.1(i)

APPROVED	O.G. FIG.
BY	CLASS
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CTG	TCT	TGG	GTG	CAT	TGG	AGC		49
Leu	Ser	Trp	Val	His	Trp	Ser		
5					10			

CAT	GCC	AAG	TGG	TCC	CAG	GCT	GCA	97
His	Ala	Lys	Trp	Ser	Gln	Ala	Ala	
20					25			

AAT	CAT	CAC	GAA	GTG	GTG	AAG	TTC	145
Asn	His	His	Glu	Val	Val	Lys	Phe	
			40					

TGC	CAT	CCA	ATC	GAG	ACC	CTG	GTG	193
Cys	His	Pro	Ile	Glu	Thr	Leu	Val	
			55					

GAG	ATC	GAG	TAC	ATC	TTC	AAG	CCA	241
Glu	Ile	Glu	Tyr	Ile	Phe	Lys	Pro	
		70					75	

GGG	GGC	TGC	TGC	AAT	GAC	GAG	GGC	289
Gly	Gly	Cys	Cys	Asn	Asp	Glu	Gly	
	85					90		

TCC	AAC	ATC	ACC	ATG	CAG	ATT	ATG	337
Ser	Asn	Ile	Thr	Met	Gln	Ile	Met	
100					105			

CAC	ATA	GGA	GAG	ATG	AGC	TTC	CTA	385
His	Ile	Gly	Glu	Met	Ser	Phe	Leu	
			120					

Fig.1(ii)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

08/765588
CCD/U96/0094

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386	CAG	CAC	AAC	AAA	TGT	GAA	TGC	AGA
	Gln	His	Asn	Lys	Cys	Glu	Cys	Arg
		125					130	
434	GAA	AAT	CCC	TGT	GGG	CCT	TGC	TCA
	Glu	Asn	Pro	Cys	Gly	Pro	Cys	Ser
	140					145		
482	CAA	GAT	CCG	CAG	ACG	TGT	AAA	TGT
	Gln	Asp	Pro	Gln	Thr	Cys	Lys	Cys
				160				
530	TGC	AAG	GCG	AGG	CAG	CTT	GAG	TTA
	Cys	Lys	Ala	Arg	Gln	Leu	Glu	Leu
			175					
578	AAG	CCG	AGG	CGG	TGAGCCGGGC			AGGAG
	Lys	Pro	Arg	Arg				
			190					
630	GAACCAGATC TCTCACCAGG							

Fig.1(iii)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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CCA	AAG	AAA	GAT	AGA	GCA	AGA	CAA	433
Pro	Lys	Lys	Asp	Arg	Ala	Arg	Gln	
			135					
GAG	CGG	AGA	AAG	CAT	TTG	TTT	GTA	481
Glu	Arg	Arg	Lys	His	Leu	Phe	Val	
		150					155	
TCC	TGC	AAA	AAC	ACA	GAC	TCG	CGT	529
Ser	Cys	Lys	Asn	Thr	Asp	Ser	Arg	
	165						170	
AAC	GAA	CGT	ACT	TGC	AGA	TGT	GAC	577
Asn	Glu	Arg	Thr	Cys	Arg	Cys	Asp	
180					185			
GAAGG	AGCCTCCCTC	AGCGTTTCGG						629
								649

Fig.1(iv)

APPROVED	CAG 519007	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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PCPAU96/00094

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1	CC ATG AGC CCT CTG CTC CGC CGC	
	Met Ser Pro Leu Leu Arg Arg	
	1	5
48	CTG GCC CCC GCC CAG GCC CCT GTC	
	Leu Ala Pro Ala Gln Ala Pro Val	
		20
96	CAG AGG AAA GTG GTG TCA TGG ATA	
	Gln Arg Lys Val Val Ser Trp Ile	
		35
144	CAG CCC CGG GAG GTG GTG GTG CCC	
	Gln Pro Arg Glu Val Val Val Pro	
		55
192	GTG GCC AAA CAG CTG GTG CCC AGC	
	Val Ala Lys Gln Leu Val Pro Ser	
		70
240	GGC TGC TGC CCT GAC GAT GGC CTG	
	Gly Cys Cys Pro Asp Asp Gly Leu	
		85
288	CAA GTC CGG ATG CAG ATC CTC ATG	
	Gln Val Arg Met Gln Ile Leu Met	
		100
336	GGG GAG ATG TCC CTG GAA GAA CAC	
	Gly Glu Met Ser Leu Glu Glu His	
		115

Fig.2(i)

APPROVED	O.G. 516	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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PC 19A 096/00094

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CTG	CTG	CTC	GCC	GCA	CTC	CTG	CAG	47
Leu	Leu	Leu	Ala	Ala	Leu	Leu	Gln	
		10					15	
TCC	CAG	CCT	GAT	GCC	CCT	GGC	CAC	95
Ser	Gln	Pro	Asp	Ala	Pro	Gly	His	
	25					30		
GAT	GTG	TAT	ACT	CGC	GCT	ACC	TGC	143
Asp	Val	Tyr	Thr	Arg	Ala	Thr	Cys	
40					45			
TTG	ACT	GTG	GAG	CTC	ATG	GGC	ACC	191
Leu	Thr	Val	Glu	Leu	Met	Gly	Thr	
			60					
TGC	GTG	ACT	GTG	CAG	CGC	TGT	GGT	239
Cys	Val	Thr	Val	Gln	Arg	Cys	Gly	
			75					
GAG	TGT	GTG	CCC	ACT	GGG	CAG	CAC	287
Glu	Cys	Val	Pro	Thr	Gly	Gln	His	
		90					95	
ATC	CGG	TAC	CCG	AGC	AGT	CAG	CTG	335
Ile	Arg	Tyr	Pro	Ser	Ser	Gln	Leu	
	105					110		
AGC	CAG	TGT	GAA	TGC	AGA	CCT	AAA	383
Ser	Gln	Cys	Glu	Cys	Arg	Pro	Lys	
120					125			

Fig. 2(ii)

APPROVED BY DRAFTSMAN	O.G. FIG. CLASS
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384	AAA	AAG	GAC	AGT	GCT	GTG	AAG	CCA
	Lys	Lys	Asp	Ser	Ala	Val	Lys	Pro
			130					135
432	CGT	CCC	CAG	CCC	CGT	TCT	GTT	CCG
	Arg	Pro	Gln	Pro	Arg	Ser	Val	Pro
		145					150	
480	CCC	TCC	CCA	GCT	GAC	ATC	ACC	CAT
	Pro	Ser	Pro	Ala	Asp	Ile	Thr	His
	160					165		
528	GCC	CAC	GCT	GCA	CCC	AGC	ACC	ACC
	Ala	His	Ala	Ala	Pro	Ser	Thr	Thr
					180			
576	GCT	GCC	GCT	GCC	GAC	GCC	GCA	GCT
	Ala	Ala	Ala	Ala	Asp	Ala	Ala	Ala
				195				

Fig. 2(iii)

APPROVED	O.G. FIG.
BY.	CLASS
DRAFTSMAN	SUBCLASS

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PC/PA/25/0094

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GAC	AGG	GCT	GCC	ACT	CCC	CAC	CAC	431
Asp	Arg	Ala	Ala	Thr	Pro	His	His	
				140				
GGC	TGG	GAC	TCT	GCC	CCC	GGA	GCA	479
Gly	Trp	Asp	Ser	Ala	Pro	Gly	Ala	
			155					
CCC	ACT	CCA	GCC	CCA	GGC	CCC	TCT	527
Pro	Thr	Pro	Ala	Pro	Gly	Pro	Ser	
		170					175	
AGC	GCC	CTG	ACC	CCC	GGA	CCT	GCC	575
Ser	Ala	Leu	Thr	Pro	Gly	Pro	Ala	
	185					190		
TCC	TCC	GTT	GCC	AAG	GGC	GGG	GCT	T 624
Ser	Ser	Val	Ala	Lys	Gly	Gly	Ala	
200					205			

Fig. 2(iv)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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625	AGAGCTCAAC	CCAGACACCT	GCAGGTGCCG
685	GACTCAGCAG	GGTGACTTGC	CTCAGAGGCT
745	GGTAAAAAAC	AGCCAAGCCC	CCAAGACCTC
805	GCCTCTCAGA	GGGCTCTTCT	GCCATCCCTT
865	GAGTTGGAAG	AGGAGACTGG	GAGGCAGCAA
825	GGAGTACTGT	CTCAGTTTCT	AACCACTCTG
985	CTCCCCTCAC	TAAGAAGACC	CAAACCTCTG
1045	CTGTGACCCC	CAACCCTGAT	AAAAGAGATG

Fig.2(v)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

08/765588
PCI/AU96/00094

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GAAGCTGCGA	AGGTGACACA	TGGCTTTTCA	684
ATATCCCAGT	GGGGGAACAA	AGGGGAGCCT	744
AGCCCAGGCA	GAAGCTGCTC	TAGGACCTGG	804
GTCTCCCTGA	GGCCATCATC	AAACAGGACA	864
GAGGGGTCAC	ATACCAGCTC	AGGGGAGAAT	924
TGCAAGTAAG	CATCTTACAA	CTGGCTCTTC	984
CATAATGGGA	TTTGGGCTTT	GGTACAAGAA	1044
GAAGGAAAAA	AAAAAAAAAAAA		1094

Fig.2(vi)

APPROVED	O.G. FIG.	
BY	CLASS	SURGLASS
DRAFTSMAN		

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PC/AU9680094

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Fig.3(i)	Fig.3(ii)

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APPROVED	Q6510	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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>VEGF_HUMAN VEGF_HUMAN VASCULAR ENDOTHELIAL
(VASCULAR 215 AA.
LENGTH = 215

SCORE = 181 (92.4 BITS), EXPECT = $6.4e-20$,
IDENTITIES = 33/75 (44%), POSITIVES = 48/75

QUERY: 31 HQRKVVSVIDVYTRATCQPREVVVPLTVEL
+++ VV +DVY R+ C+P E +V + E
SBJCT: 36 NHHEVVKFMDVYQRSYCHPIETLVDIFQEY

QUERY: 91 PTGQHQVRMQILMIR 105
PT + + MQI+ I+
SBJCT: 96 PTEESNITMQIMRIK 110

SCORE = 76 (38.8 BITS), EXPECT = 0.0011,
IDENTITIES = 12/19 (63%), POSITIVES = 16/19

QUERY: 110 QLGEMSLEEHSQCECRPKK 128
++GEMS +H+ CECRPKK
SBJCT: 116 HIGEMSFLQHNKCECRPKK 134

SCORE = 72 (36.8 BITS), EXPECT = 0.0046,
IDENTITIES = 14/21 (66%), POSITIVES = 15/21

QUERY: 202 RCQGRGLELNPDTCTCRCKLRR 222
RC +R LELN TCRC K RR
SBJCT: 195 RCKARQLELNERTCRCDKPRR 215

SCORE = 46 (23.5 BITS), EXPECT = 47.,
IDENTITIES = 6/10 (60%), POSITIVES = 9/10

QUERY: 187 DPRTCTCRCTCR 196
DP+TC+C C+
SBJCT: 181 DPQTCKCSCK 190

SUBSTITUTE SHEET (RULE 26)

Fig.3(i)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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PC 10A/95/00094

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GROWTH FACTOR PRECURSOR (VEGF)

$$P = 6.4e-20$$

(64%)

MGTVAKQLVPSCVTVQRCGGCCPDDGLECV 90
+ PSCV + RCGGCC D+GLECV
PDEIEYIFKPSCVPLMRCGGCCNDEGLECV 95

$$\text{POISSON } P(2) = 9.1e-12$$

(84%)

$$\text{POISSON } P(3) = 3.6e-18$$

(71%)

$$\text{POISSON } P(4) = 7.3e-10$$

(90%)

Fig. 3(i)

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Gap Weight:3.00	Average Match:1.000
Length Weight:0.100	Average Mismatch:-0.900
Quality:100.9	Length:739
Ratio:0.175	Gaps:30
Percent	Percent
Similarity:69.703	Identity:69.703

```

28      ATGAGCCCTCTGCTCCGCCGCCCTGC
      ||||| | ||||| | ||
17      ATGAACTTTCTGCT.....GTCT..
      .
68      TGCAGCTGGCCCCCGCCCAGGCCCC
      ||| ||| || | ||| |||
57      TGCTGCTCTACCTCCACCATGCCAA
      .
118     CACCAGAGGA.....
      |||||
106     AGAAGGAGGAGGGCAGAATCATCAC
      .
140     GTGTATACTCGC.GCTACCTGCCAG
      || ||| ||| ||| |||||
152     GTCTATCAGCGCAGCTA.CTGCCAT
      .
194     T....GA.....CTGTGGAGCTCAT
      | || ||| ||| |||
201     TCCAGGAGTACCCTGATGAGATCGA
      .
235     CCCAGCTGCGTGACTGTGCAGCGCT
      || ||| ||| | || ||| |
239     CCATCCTGTGTGCCCCCTGATGCGAT
      .
285     CCTGGAGTGTGTGCCCCACTGGGCAG
      ||||| ||||| ||||| ||| ||
289     CCTGGAGTGTGTGCCCCACTGAGGAG

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Fig. 4(i)

APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

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PCT/96/00094

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25243 00000000

TGCTCGCCGCACT CC	67
...TGGGTGCATTGGAGCCTTGCCT	56
TGTCTCCCAGCCTGATGCCCCCTGGC	117
GTGGTCCCAGGCTGCA . CCCATGGC	105
.AAGTGGTG TCATGGATAGAT	147
GAAGTGGTGAAGTTCATG GAT	151
CCCCGGGAG . . . GTGGTGGTGCCCT	193
CCAATCGAGACCCTGGTGGACATCT	200
GGGCACCGTGGCCAAACAGCTGGTG	234
GTACATCTT . . . CAA G	238
GTGGTGGCTGCTGCCCTGACGATGG	284
GCGGGGGCTGCTGCAATGACGAGGG	288
CACCAAGTCCGGATGCAGAT	329
TCCAACATCACCATGCAGATTATGC	338

Fig.4(ii)
SUBSTITUTE SHEET (RULE 26)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN	WO 9527007	

08/765588
PCP/600000

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330      .....CCTCATGATCCGGTACC
           |||||
339      GGATCAAACCTCA.....C

369      GTCCCTGGAAGAACACAGCCAGTGT
           ||| ||||| |||
376      GAGCTTCCTACAGCACAAATGT

419      GTGCTGTGAAGCCAGACAGGGCTGC
           | ||| |||||
423      G.....AGCAAGACAAG.....

469      CGTTCTGTTCCGGGCTGGGACTCTG
           ||| |||||
443      ...TGTGGGCCTTGCTCAGA.....

519      CATCACCCATCCCCTCCAGCCCCA

468      .....

569      GC.....ACCACCAGCGCCC
           || |||
469      GCATTTGTTTGTACAA.....

609      TGCCGACGCCGCAGCTTCCTCCGTT
           ||| ||||| |||
509      TG.CAAAAACACAGACTC..GCGTT

657      AACCCAGACACCTGCAGGTGCCGGA
           ||| |
554      AACGAACGTACTTGCAGATGTGACA

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Fig.4(iii)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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PCTA U96/08094

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CGAGCAGTCAGC . . . TGGGGGAGAT	368
CAAG . . GCCAGCACATAGGAGAGAT	375
GAATGCAGACCTAAAAAAAAAAGGACA	418
GAATGCAGACC . . . AAAGAAAGATA	422
CACTCCCCACCACCGTCCCCAGCCC	468
. AAAATCCC	442
CCCCCGGAGCACCTCCCCAGCTGA	518
. . . GCGGAGAA	467
GGCCCCTCTGCCCCACGCTGCACCCA	568
. A	468
TGACCCCCGGACCTGCCGCTGCCGC	608
. GATCCGCAGACGTGTAAATGTTCC	508
GCCAAGGGCGGGGC . . TTAGAGCTC	656
GC . . AAGGCGAGGCAGCTTGAGTTA	553
AGCTGCGAAGGTGA	695
AGCCGAGGCGGTGA	592

Fig.4(iv)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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165SOMSQ.MSF.msf MSF:687

Type: D Tuesday, June 20, 1995

Check:3140

1

VEGF165	ATGAACTTTCTGCTGTCTTGGGTG
SOM175	ATGAGCCCTCTGCTCCGCCGCCTG
SOM175-e6	ATGAGCCCTCTGCTCCGCCGCCTG
SOM175-e6&7	ATGAGCCCTCTGCTCCGCCGCCTG
SOM175-e4	ATGAGCCCTCTGCTCCGCCGCCTG

81

VEGF165	CACCCATGGCAGAAGGAGGAGGGC
SOM175	TGCCCCTGGCCACCAGAGGAAAGT
SOM175-e6	TGCCCCTGGCCACCAGAGGAAAGT
SOM175-e6&7	TGCCCCTGGCCACCAGAGGAAAGT
SOM175-e4	TGCCCCTGGCCACCAGAGGAAAGT

161

VEGF165	CCAATCGAGACCCTGGTGGACATC
SOM175	GTGGTGGTGGCCCTTGACTG.TGGA
SOM175-e6	GTGGTGGTGGCCCTTGACTG.TGGA
SOM175-e6&7	GTGGTGGTGGCCCTTGACTG.TGGA
SOM175-e4	GTGGTGGTGGCCCTTGACTG.TGGA

241

VEGF165	GATGCGATGCGGGGGCTGCTGCAA
SOM175	GCAGCGCTGTGGTGGCTGCTGCCC
SOM175-e6	GCAGCGCTGTGGTGGCTGCTGCCC
SOM175-e6&7	GCAGCGCTGTGGTGGCTGCTGCCC
SOM175-e4	GCAGCGCTGTGGTGGCTGCTGCCC

Fig.5(i)

SUBSTITUTE SHEET (RULE 26)

APPROVED	O.G. FIG.	
BY	CLASS	CLASS
DRAFTSMAN		

08/765588
PETA 196/08074

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CATTGGAGCCTTGCCTTGCTGCTCTACC
CTGCTCGCCGCACTCCTGCAGCTGGCCC
CTGCTCGCCGCACTCCTGCAGCTGGCCC
CTGCTCGCCGCACTCCTGCAGCTGGCCC
CTGCTCGCCGCACTCCTGCAGCTGGCCC

AGAATCATCACGAAGTGGTGAAGTTCAT
GGTGTTCATGGATAGATGTGTATACTCGC
GGTGTTCATGGATAGATGTGTATACTCGC
GGTGTTCATGGATAGATGTGTATACTCGC
GGTGTTCATGGATAGATGTGTATACTCGC

TTCCAGGAGTACCCTGATGAGATCGAGT
GCTCATGGGCACCGTGGCCAAAC..AGC
GCTCATGGGCACCGTGGCCAAAC..AGC
GCTCATGGGCACCGTGGCCAAAC..AGC
GCTCATGGGCACCGTGGCCAAAC..AGC

TGACGAGGGCCTGGAGTGTGTGCCCCACT
TGACGATGGCCTGGAGTGTGTGCCCCACT
TGACGATGGCCTGGAGTGTGTGCCCCACT
TGACGATGGCCTGGAGTGTGTGCCCCACT
TGACGATGGCCTGGAGTGTGTGCCCCACT

Fig. 5(ii)

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	321
VEGF165	TGCGGATCAAACCTCACCAAGGCC
SOM175	TCATGATCCGG...TACCCGAGCA
SOM175-e6	TCATGATCCGG...TACCCGAGCA
SOM175-e6&7	TCATGATCCGG...TACCCGAGCA
SOM175-e4	.....
	401
VEGF165	AAGAAAGATAG.....AGCAA
SOM175	AAAAAGGACAGTGCTGTGAAGCCA
SOM175-e6	AAAAAGGACAGTGCTGTGAAGCCA
SOM175-e6&7	AAAAAGGACAGTGCTGTGAAGCCA
SOM175-e4	AAAAAGGACAGTGCTGTGAAGCCA
	481
VEGF165	.....AAGCA.....
SOM175	CTCTGCCCCCGGAGCACCTCCCC
SOM175-e6	.....
SOM175-e6&7	.....
SOM175-e4	CTCTGCCCCCGGAGCACCTCCCC
	561
VEGF165	A.....GATCCGCA
SOM175	GCACCACCAGCGCCCTGACCCCCG
SOM175-E6	GCACCACCAGCGCCCTGACCCCCG
SOM175-e6&7	.....
SOM175-e4	GCACCACCAGCGCCCTGACCCCCG
	641
VEGF165	TTGAGTTAAACGAACGTACTTGCA
SOM175	TAGAGCTCAACCCAGACACCTGCA
SOM175-e6	TAGAGCTCAACCCAGACACCTGCA
SOM175-e6&7	.....
SOM175-e4	TAGAGCTCAACCCAGACACCTGCA

Fig.5(iv)

APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

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AGCACATAGGAGAGATGAGCTTCCTACA
GTCAGCTGGGGGAGATGTCCCTGGAAGA
GTCAGCTGGGGGAGATGTCCCTGGAAGA
GTCAGCTGGGGGAGATGTCCCTGGAAGA

.....

GACAAGAA.....AATCCCTGTGG.....
GACAGGGCTGCCACTCCCCACCACCGTC
GATAG.....
GATAG.....
GACAGGGCTGCCACTCCCCACCACCGTC

.....
AGCTGACATCACCCATCCCCTCCAGCC
.....CC
.....
AGCTGACATCACCCATCCCCTCCAGCC

GACGTGTAAATGTTCTGCAAAAAC.AC
GACCTGCCGCTGCCGCTGCCGACGCCGC
GACCTGCCGCTGCCGCTGCCGACGCCGC
.....
GACCTGCCGCTGCCGCTGCCGACGCCGC

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GATGTGACAAGCCGAGGCGGTGA
GGTGCCGGAAGCTGCGAAGGTGA
GGTGCCGGAAGCTGCGAAGGTGA
.GTGCCGGAAGCTGCGAAGGTGA
GGTGCCGGAAGCTGCGAAGGTGA

Fig.5(v)

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400

GCACAACAAATGTGAATGCAGACC...A
ACACAGCCAGTGTGAATGCAGACCTAAA
ACACAGCCAGTGTGAATGCAGACCTAAA
ACACAGCCAGTGTGAATGCAGACCTAAA
.....CCTAAA

480

.....GCCTTGCTCAGAGCGGAGA
CCCAGCCCCGTTCTGTTCCGGGCTGGGA
.....
.....
CCCAGCCCCGTTCTGTTCCGGGCTGGGA

560

.....TTTGTT.....TGTAC..A
CCAGGCCCCTCTGCCCACGCTGCACCCA
CCAGGCCCCTCTGCCCACGCTGCACCCA
.....
CCAGGCCCCTCTGCCCACGCTGCACCCA

640

AGACTCG..CGTTGCAAGGCGAGGCAGC
AGCTTCCTCCGTTGCCAAGGGCGGGGCT
AGCTTCCTCCGTTGCCAAGGGCGGGGCT
.....
AGCTTCCTCCGTTGCCAAGGGCGGGGCT

Fig.5(vi)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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Fig 6(i)	29/52	Fig 6(ii)	30/52
Fig 6(iii)	31/52		

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VEGF ₁₆₅	M	N	F	L	L	S	W	V	H	W	S	L	A	L	L	L	Y	L	H	H	A	K	W	S	Q	A	A	P
SOM175 _{Short}	M	S	P	L	L	R	R	L	L	L	L	L	A	L	L	L	Q	L	A	P	A	Q	A	P
VEGF ₁₆₅	I	F	Q	E	Y	P	D	E	I	E	Y	I	F	K	P	S	C	V	P	L	M	R	C	G	G	C	C	N
SOM175 _{Short}	L	T	V	E	L	M	G	T	V	A	K	Q	L	V	P	S	C	V	T	V	Q	R	C	G	G	C	C	P
VEGF ₁₆₅	F	L	Q	H	N	K	C	E	C	R	P	K	K	.	.	.	.	.	.	.	D	R	A	.	.	.	.	.
SOM175 _{Short}	L	E	E	H	S	Q	C	E	C	R	P	K	K	K	D	S	A	V	K	P	D	R	A	A	T	P	H	H
VEGF ₁₆₅	C	K	C	S	C	K	N	T	D	S	R	C	K	A	R	Q	L	E	L	N	E	R	T	C	R	C	D	K
SOM175 _{Short}	H	A	A	P	S	T	T	S	A	L	T	P	G	P	A	A	A	A	A	D	A	A	A	S	S	V	A	K
OR...																												
VEGF ₁₆₅	M	N	F	L	L	S	W	V	H	W	S	L	A	L	L	L	Y	L	H	H	A	K	W	S	Q	A	A	P
SOM175 _{Long}	M	S	P	L	L	R	R	L	L	L	L	L	A	L	L	L	Q	L	A	P	A	Q	.	.	.	.	A	P
VEGF ₁₆₅	I	F	Q	E	Y	P	D	E	I	E	Y	I	F	K	P	S	C	V	P	L	M	R	C	G	G	C	C	N
SOM175 _{Long}	L	T	V	E	L	M	G	T	V	A	K	Q	L	V	P	S	C	V	T	V	Q	R	C	G	G	C	C	P
VEGF ₁₆₅	F	L	Q	H	N	K	C	E	C	R	P	K	K	.	.	.	.	.	.	.	D	R	A	.	.	.	.	.
SOM175 _{Long}	L	E	E	H	S	Q	C	E	C	R	P	K	K	K	D	S	A	V	K	P	D	R	A	A	T	P	H	H
VEGF ₁₆₅	G	P	C	S	E	R	R	K	H	L	F	V	Q	D	P	Q	T	C	K	C	S	C	K	N	T	D	S	.
SOM175 _{Long}	P	R	C	T	Q	H	H	Q	R	.	.	P	D	P	P	R	T	C	R	C	R	C	R	R	R	S	F	L

Fig.6(i)

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MAEGGQN HHE . VVKFM DVYQ RSYQ D V Y 60
VSQPDAPGH QRK VV KSWI DVYQ TRA T L V D
DEGL ECVPT ESNI TMQ IMR IKPH QGQH H I E V V P
DEGL ECVPT GQH QV RMQ ILM I R . YPS SQH I G E M S 121
. RQEN PCGP CSERRKH LF . VQD PQT 170
RPPRSVPGWDSAPPGAPSPADITH PTPAPG P S A 175
PRR
GGA 191
207

MAEGGQN HHE . VVKFM DVYQ RSYQ D V Y 60
VSQPDAPGH QRK VV KSWI DVYQ TRA T L V D
DEGL ECVPT ESNI TMQ IMR IKPH QGQH H I E V V P
DEGL ECVPT GQH QV RMQ ILM I R . YPS SQH I G E M S 121
RQENP RQENPCSPADITH PTPAPG P S A 170
RPPRSVPGWDSAPPGAPSPADITH PTPAPG P S A 177
RCKARQL E L N ER TCRC DKP RR 191
RCKARQL E L N ER TCRC DKP RR 222

Fig. 6(ii)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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PCT/AU96/00094

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Areas of 100% homology are boxed and conserved residues thought to be involved in homodimerisation are underlined. The VEGF sequence depicted includes the 26 amino acid leader sequence (removal of which gives rise to mature VEGF₁₆₅) giving a total length of 191 amino acids.

Homology of SOM175 to VEGF₁₆₅ is 27% (33%) at the protein level, however within this are blocks of 100% homology. In particular, many structural residues are conserved including those thought to be involved in homodimerisation of VEGF (by comparison with PDGF).

ie. Cysteine-47
Proline-70, Cysteine-72, Valine-74
Arginine-77, Cystein-78, Glycine-80, Cysteines-81 & 82
Cysteine-89, Proline-91
Cysteines 122 & 124

Fig.6(iii)

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SPLICE VARIANTS OF SOM175

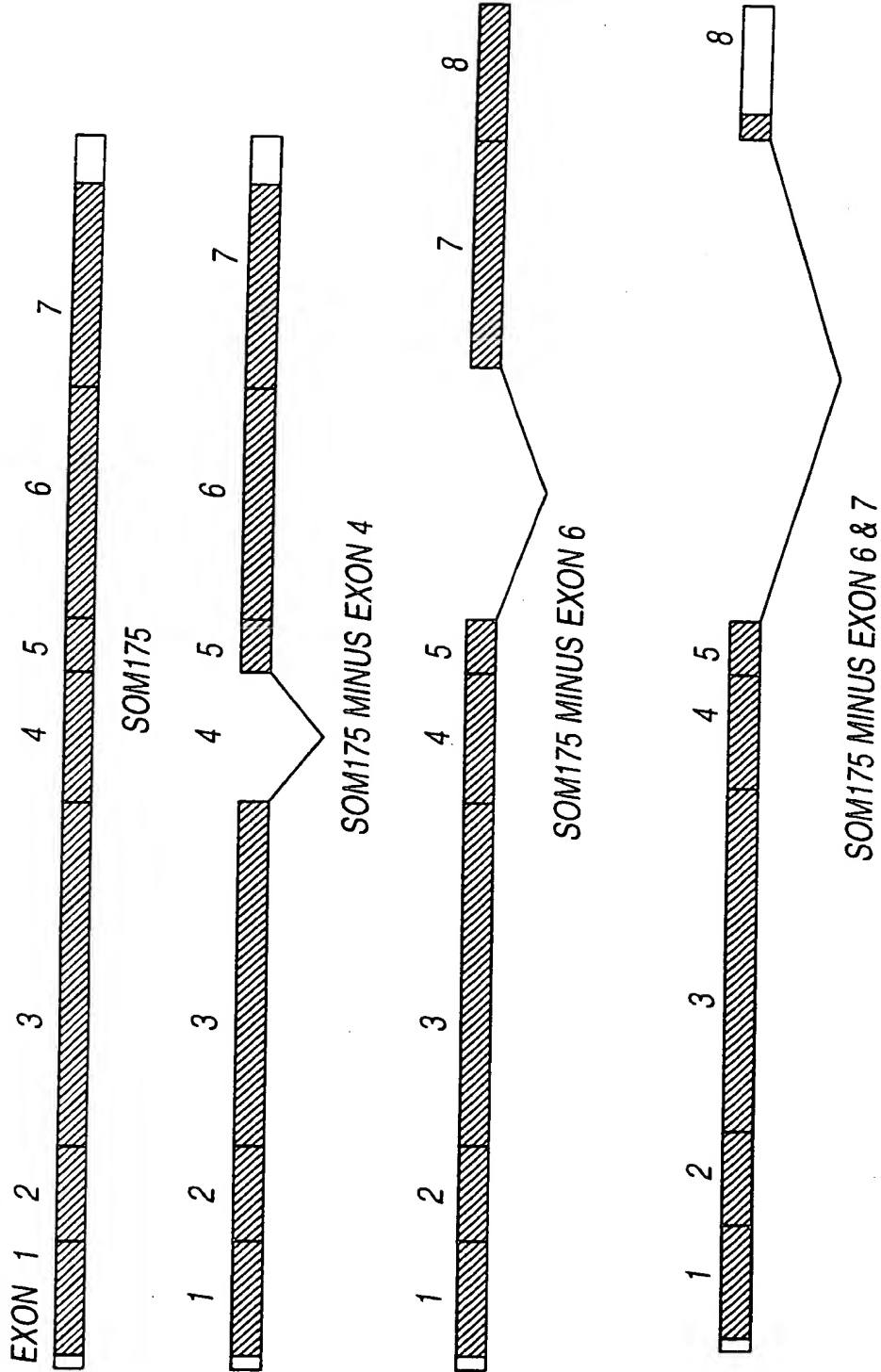


Fig. 7

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GENOMIC STRUCTURE OF HUMAN SOM175

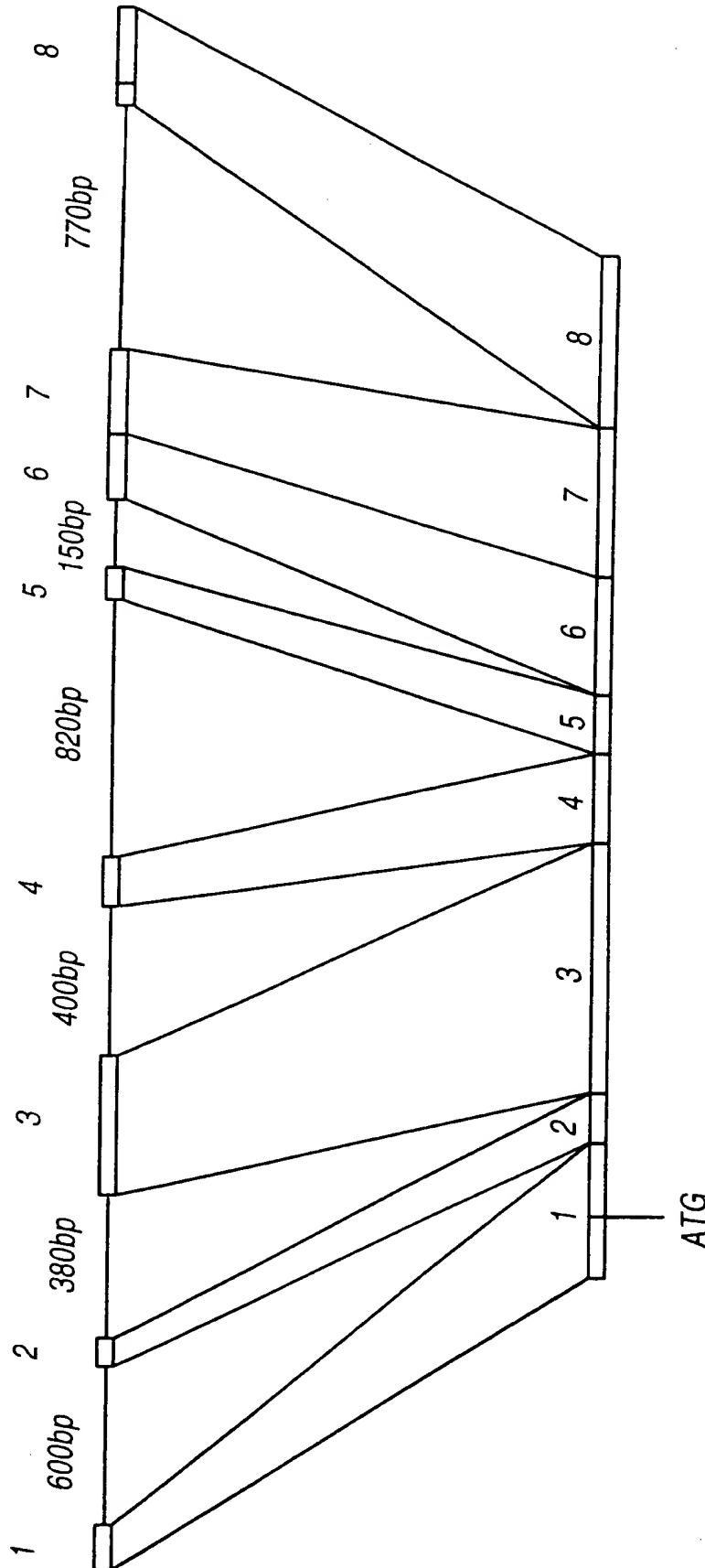


Fig. 8A

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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5'UTR... ATGAGG	*Exon 1 (60bp)	GGCCAG gtacgtgagg
tctcccacag GCCCCT	Exon 2 (43bp)	GGAAAG aatacttaca
tctgctccca TGGTGT	Exon 3 (187bp)	ATGCAG gtccgagatg
ctgaatacag ATCCTC	Exon 4 (73bp)	ATGCAG gtgtcaggca
acttttcaag ACCTAA	Exon 5 (34bp)	AGACAG gtgagtccttt
ctcctccgta GGCTGC	Exon 6 (101bp)	CTCCAG cccaggccc
cccactccag CCCCAG	Exon 7 (109bp)	ACCCAG acacctgtag
ccctgctcag GTGCCG	*Exon 8 (22bp)	AGGTGA ...3'UTR

Fig.8B

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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<p>36/52</p> <p>Fig. 9(i)</p>	<p>37/52</p> <p>Fig. 9(ii)</p>
<p>38/52</p> <p>Fig. 9(iii)</p>	<p>39/52</p> <p>Fig. 9(iv)</p>

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-163 gcacgagctcaggccgctcgctgcggcgctg
-103 gggggccgcggaggagccgccccctgcgcc
-43 ggcggtcttggtgacccccccccacaccg

16 CGTCGCCTGCTGCTTGTTGCACTGCTGCAG
R R L L L V A L L Q

76 TTTGATGGCCCCAGTCACCAGAAGAAAGTG
F D G P S H Q K K V

136 ACATGCCAGCCCAGGGAGGTGGTGGTGCCT
T C Q P R E V V V P

196 AAACAAGTAGTGCCCAGCTGTGTGACTGTG
K Q L V P S C V T V

256 GGCCTGGAATGTGTGCCCACTGGGCAACAC
G L E C V P T G Q H

316 TACCCGAGCAGTCAGCTGGGGGAGATGTCC
Y P S S Q L G E M S

376 CCTAAAAAAAAGGAGAGTGCTGTGAGGCCA
P K K K E S A V R P

436 CAGCCCCGCTCTGTTCCGGGCTGGGACTCT
Q P R S V P G W D S

Fig.9(i)

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cgttgcgctgcctgcgcccagggctcggga
ccgccccgggtccccgggtccgcgccatgg
ccgggctagggccccgATGAGCCCCCTGCTG
M S P L L -17
↓
CTGGCTCGCACCCAGGCCCTGTGTCCCAG
L A R T Q A P V S Q 4
GTGCCATGGATAGACGTTTATGCACGTGCC
V P W I D V Y A R A 24
CTGAGCATGGAACCTCATGGGCAATGTGGTC
L S M E L M G N V V 44
CAGCGCTGTGGTGGCTGCTGCCCTGACGAT
Q R C G G C C P D D 64
↓
CAAGTCCGAATGCAGATCCTCATGATCCAG
Q V R M Q I L M I Q 84
CTGGGAGAACACAGCCAATGTGAATGCAGA
L G E H S Q C E C R 104
↓
GACAGGGTTGCCATACCCACCCGTCCTCC
D R V A I P H H R P 124
ACCCCGGGAGCACCTCCCCAGCTGACATC
T P G A P S P A D I 144

Fig.9(ii)

APPROVED	O.G. FIG	
BY	CLASS	SUBCLASS
DRAFTSMAN		

08/765588
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496 ATCCATCCCACTCCAGCCCCAGGATCCTCT
 I H P T P A P G S S
 S P R I L

556 CTGACCCCCGGACCTGCCGTTGCCGCTGTA
 L T P G P A V A A V
 P D P R T C R C R C

616 GGGGCTTAGAGCTCAACCCAGACACCTGTA
 G A *
 R G L E L N P D T C

676 ctttccagactccacggggcccggctgcttt
 736 agcacaggcgtaacctcctcagtctgggag
 796 gagctctctcgccatctttttatctcccaga
 856 atgtctcacctcagggggccaggggtactctc
 916 ttctggctggctgtctcccctcactatgaa
 976 gggttctgttatgataactgtgacacacac
 1036 gacactaaaaaaaaaaaaaaaaaaaaaaaaa

Fig.9(iii)

APPROVED	O.G. FIG.
BY	CLASS/SUBCLASS
DRAFTSMAN	

08/765588
PCY/AU96/00094

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GCCCGCCTTGCACCCAGCGCCGCCAACGCC
A R L A P S A A N A 164
C P P C T Q R R Q R 130

GACGCCGCCGCTTCCTCCATTGCCAAGGGC
D A A A S S I A K G 184
R R R R F L H C Q G 150

↓
GGTGCCGGAAGCCGCGAAAGTGAcaagctg 186
R C R K P R K * 167

tatggccctgcttcacagggagaagagtgg
gtcactgccccaggacctggacctttttaga
gctgccatctaacaattgtcaagggaacctc
tcacttaaccaccctgggtcaagtgagcatc
aaccceaaacttctaccaataacgggattt
acacactcacactctgataaaagagatgga
aaaaaaaaaaaaa

Fig.9(iv)

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A

hVRF167	-21	MSPLLRRLLLAALLQLAPAQAP
mVRF167	-21	MSPLLRRLLLVALLQLARTQAP
hVRF167	30	EVVVPLTVELMGTVAKQLVPSC
		:
mVRF167	30	EVVVPLSMELMGNVVKQLVPSC
hVRF167	80	ILMIRYPSSQLGEMSLEEHSQC
		:
mVRF167	80	ILMIQYPSSQLGEMSLGEHSQC
hVRF167	130	RPDPRTCRCRCRRRSFLRCQGR
		:
mVRF167	130	RPDPRTCRCRCRRRRFLHCQGR

B

hVRF186	116	RAATPHHRPQPRSVPGWDSAPG
mVRF186	116	RVAIPHHRPQPRSVPGWDSTPG
hVRF186	166	TPGPAAAAADAAASSVAKGGA*
		:
mVRF186	166	TPGPAVAAVDAAASSIAKGGA*

Fig.10(i)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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VSQPDAPGHQRKVVSVIDVYTRATCQPR 29

||| | : | : | : | | | | | | | | | |

VSQFDGPPSHQKKVVPWIDVYARATCQPR 29

VTVQRCGGCCPDDGLECVPTGQHQRVMQ 79

||| | | | | | | | | | | | | | | | | | | |

VTVQRCGGCCPDDGLECVPTGQHQRVMQ 79

ECRPKKKDSAVKPDSPRPLCPRCTQHQQ 129

||| | | | : | | : | | | | | | | | : : |

ECRPKKKESAVRPDSPRILCPPCTQRRQ 129

GLELNPDTCRCKLRR* 167

||| | | | | | | | | | : |

GLELNPDTCRCKPRK* 167

APSPADITHPTPAPGPSAHAAPSTTSAL 165

||| | | | | | | | | : | | | | |

APSPADIIHPTPAPGSSARLAPSAANAL 165

186

186

Fig.10(ii)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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Fig 11(i)	Fig 11(ii)

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APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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PCT/AU96/00094

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mVRF167	-21	MSPLLRL..LLVALLQL..
		: : :
mVEGF188	-26	MNFLLSVHWTALLLYLHH
mVRF167	25	TCQPREVVVPLSMELMGNVV
		: : : :
mVEGF188	24	YCRPIETLVDIFQEYPDEIE
mVRF167	75	QVRMQILMIQYPSSQ.LGEM
		: : :
mVEGF188	74	NITMQIMRIKPHQSQHIGEM
mVRF167	119	.....ILCPPC
		:
mVEGF188	124	QKRKRKKS RFKSWSVHCEPC
mVRF167	152	GLELNPDTCRCKPRK
		:
mVEGF188	173	QLELNERTCRCDKPRR

Fig.11(i)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

08/765588
PCT/AU96/00094

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26349-3339200

AR.TQAPVSQFDGPSHQKKVVPWIDVYARA	24
: : : : : : ::	
AKWSQAAPTT.EGEQKSHEVIKFMDVYQRS	23
KQLVPSCVTVQRCGGCCPDDGLECVPTGQH	74
: : : : : : :	
YIFKPSCVPLMRCAGCCNDEALECVPTSES	73
SLGEHSQCECRPKKKESAVRPDSPR.....	118
: :	
SFLQHSRCECRPKKDRTKPEKKSVRGKGKG	123
TQRRQR...PDPRTCRCRCRRRRFLHCQGR	151
: : : : : :	
SERRKHLFVQDPQTCKCSCKNTDS.RCKAR	172
	167
	188

Fig.11(ii)

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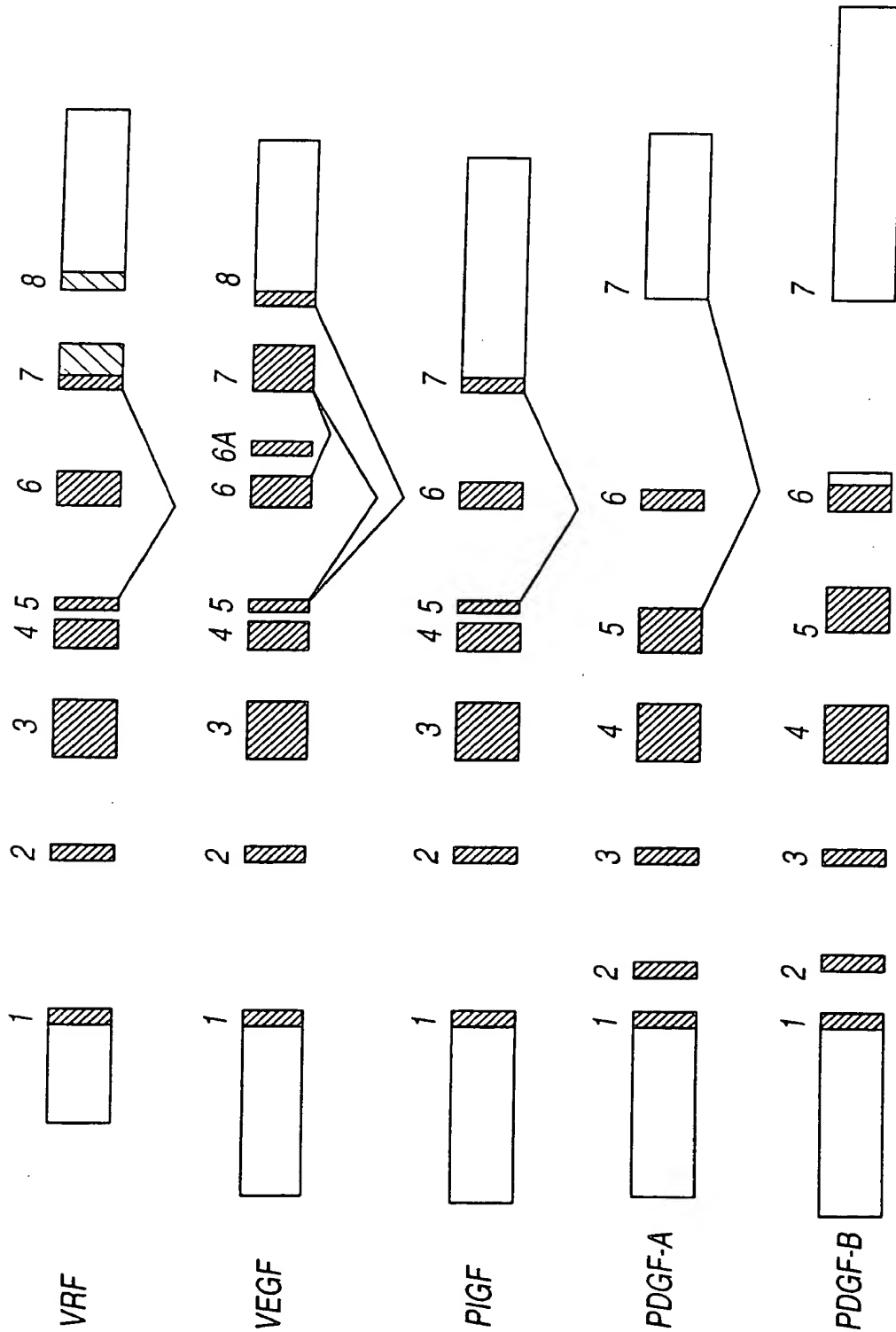


Fig.12

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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PCT/AU96/00094

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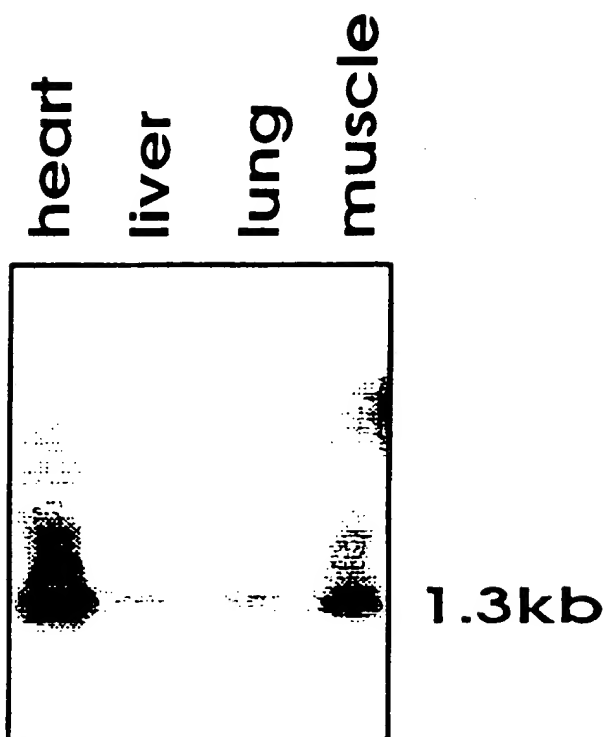


Fig.13

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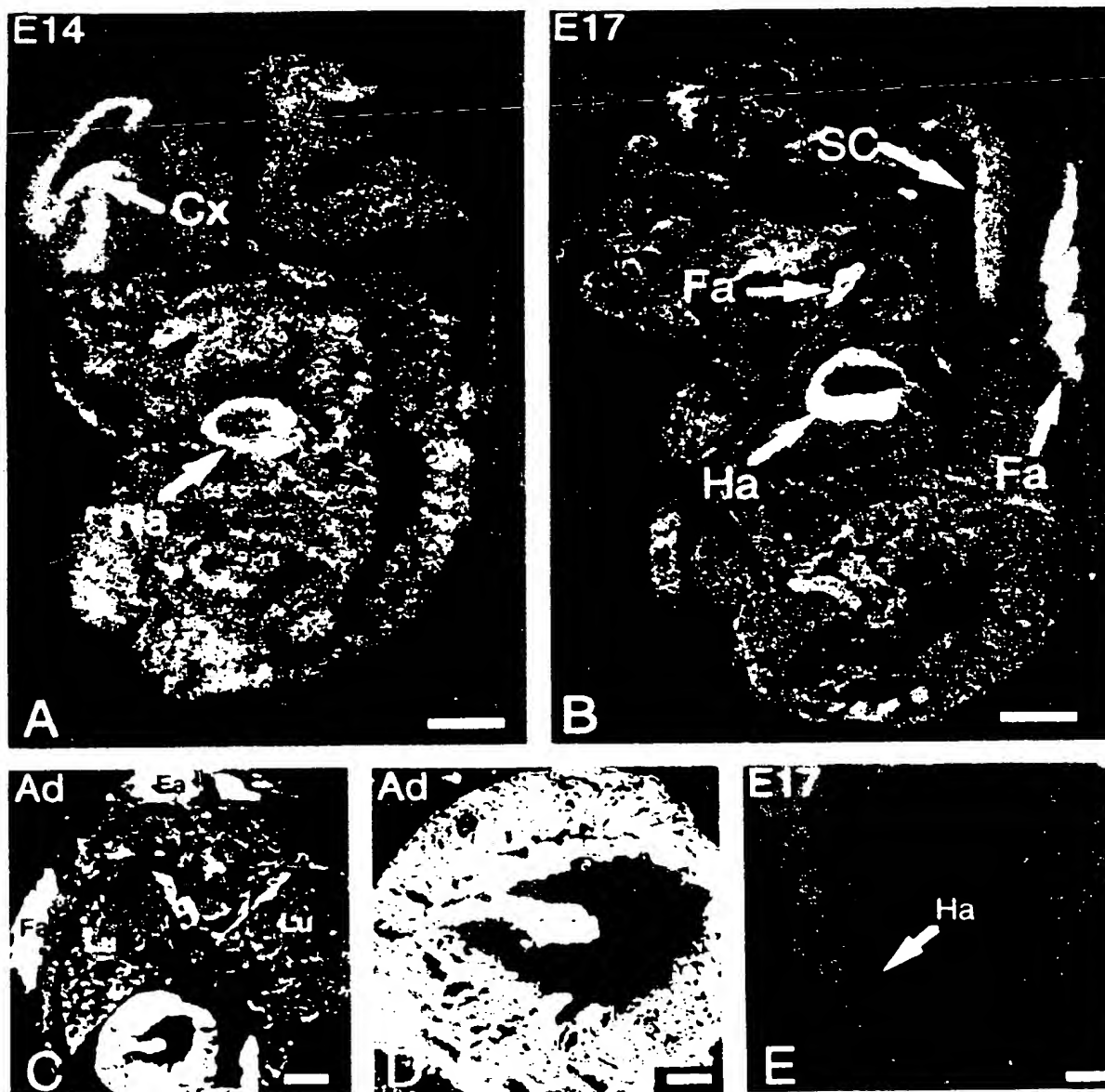


Fig.14

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN	WO 96/27007	

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PCT/AU96/00094

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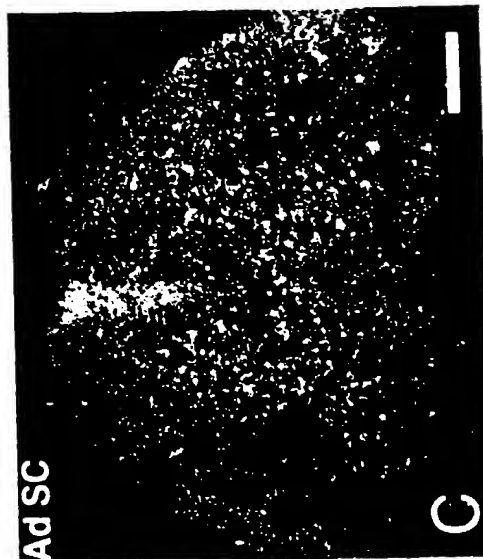
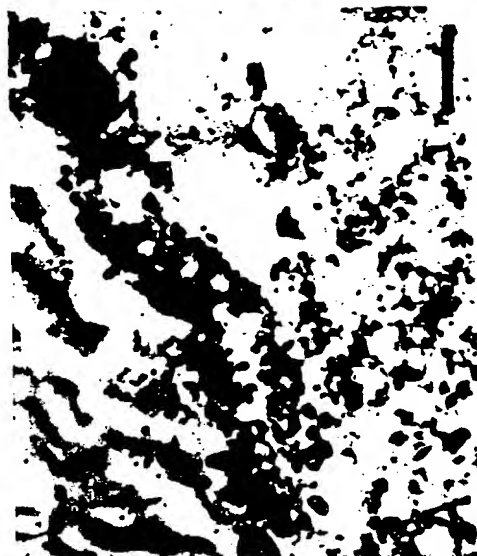


Fig. 15

265240 88553200

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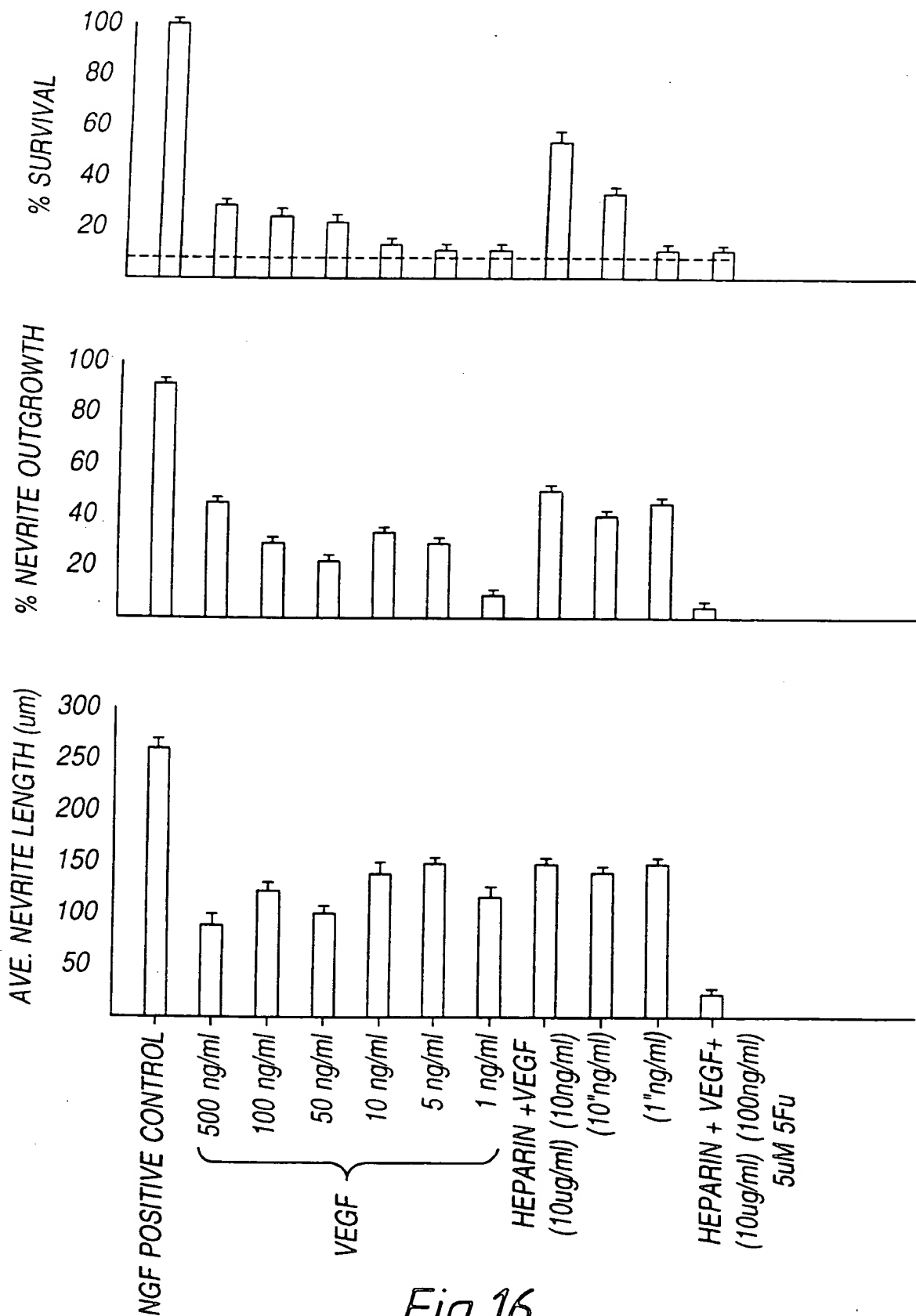


Fig. 16

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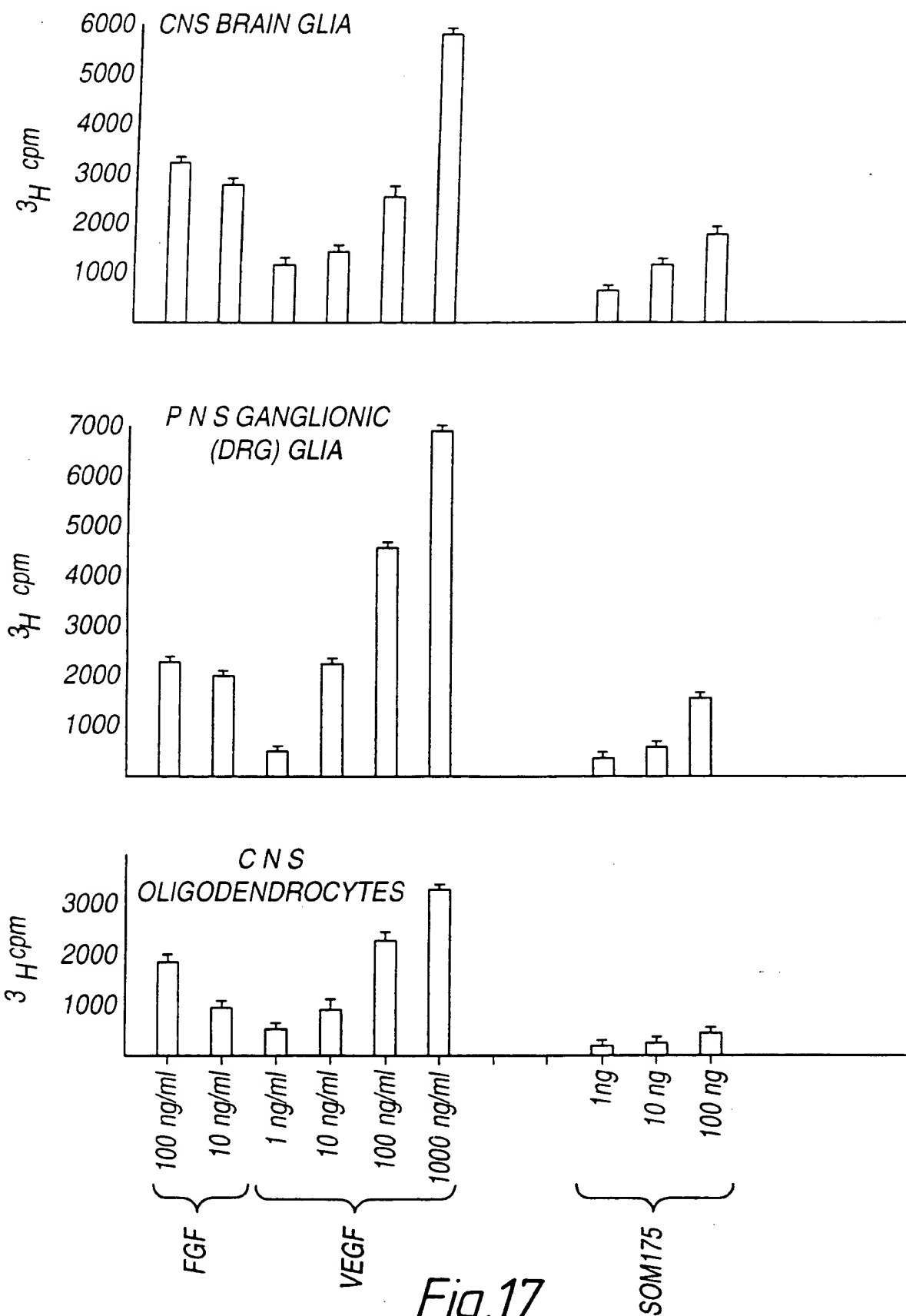


Fig.17
SUBSTITUTE SHEET (RULE 26)

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MOUSE ASTROGLIAL CELLS

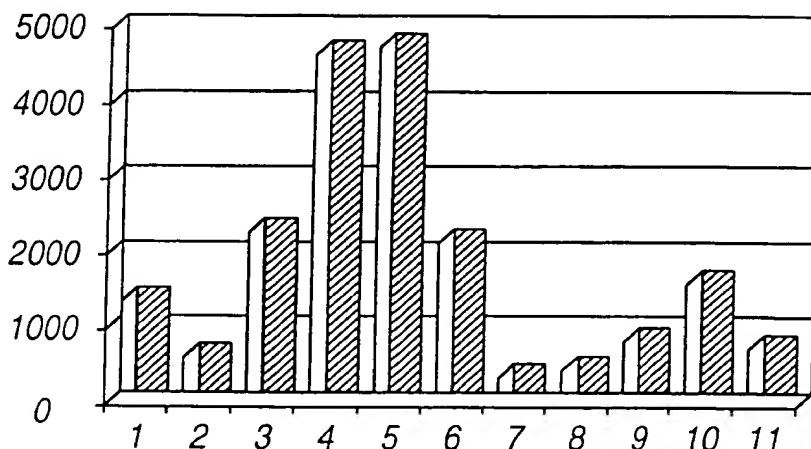


Fig.18

MOUSE OLIGODENDROGLIAL CELLS

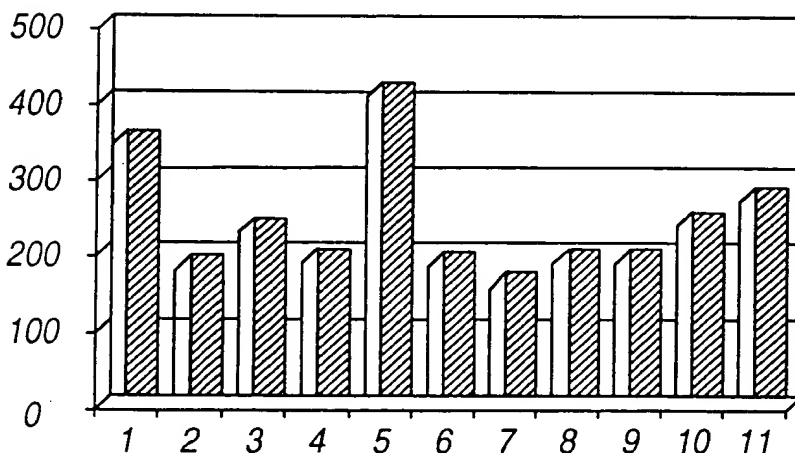


Fig.19

MOUSE FOREBRAIN NEURONS

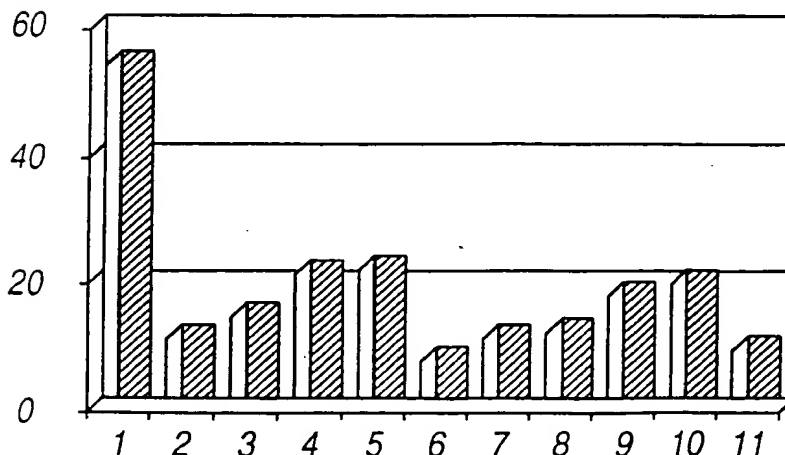


Fig.20